

### Amendments to the Claims

This listing of claims replaces all prior versions and listings of claims in the application.

### Listing of Claims

1-108. (Cancelled)

109. (Currently Amended) A method, comprising:

identifying receiving one or more advertisements that are available for presentation with a document;

receiving, by at least one processor, initial advertisement performance information for the one or more advertisements, the advertisement performance information for each advertisement specifying a measure of performance computed based on previous presentations of the advertisement;

identifying, by at least one processor, one or more content-concepts [[of a]] to which the document is relevant, concepts being identified based on content of the document;

receiving, by at least one processor and for each content-identified concept [[of]] for the document, content-concept performance information representing an aggregate performance of advertisements that were presented with the document and corresponding to the concept;

determining, for each content-concept of the document, at least one of the one or more advertisements associated with the content-concept;

modifying, using by at least one processor, the initial advertisement performance information for an at least one of the one or more advertisement[[s]] using the determined content-concept performance information for the content an identified concept associated with corresponding to the at least one of the one or more advertisement[[s]]; and

forwarding, based on the modified advertisement performance information, at least one of the advertisements.

110. (Currently Amended) The method of claim 109, wherein the advertisement performance information includes ~~one or more of~~ selection information and impression information for the ~~one or more~~ advertisements.

111. (Previously Presented) The method of claim 109, wherein the document is a Web page identified by a URL.

112. (Currently Amended) The method of claim 109, wherein modifying the initial advertisement performance information for an ~~the at least one of the one or more~~ advertisement[[s]] comprises:

~~identifying selecting an identified content~~ concept associated with the ~~at least one of the one or more to which the~~ advertisement[[s]] corresponds; and

~~receiving content~~ concept performance information associated with the ~~content for the selected concept, the content performance information being computed based on performance of other advertisements that were presented with the document and correspond to the selected concept, associated with the at least one of the one or more advertisements.~~

113. (Currently Amended) The method of claim 109, wherein receiving, for each ~~content-identified~~ concept [[of]] ~~for~~ the document, the ~~content~~-concept performance information comprises determining, for each ~~content-identified~~ concept ~~for~~ [[of ]]the document, ~~content~~ concept performance information using [[the]] document specific advertisement performance information for the identified advertisements ~~at least one of the one or more advertisements associated with the content corresponding to the identified~~ concept.

114. (Currently Amended) The method of claim 113, ~~wherein further comprising:~~  
~~determining, for each content concept of the document, the at least one of the one or more advertisements associated with the content concept comprises~~ determining, for a content each

identified concept [[of]] for the document, document specific advertisement performance information for a first advertisement and a second advertisement associated with the content concept; and

determining, for each ~~content~~ identified concept [[of]] for the document, content concept performance information using the document specific advertisement performance information for the ~~at least one of the one or more advertisements associated with the content concept~~ comprises processing, ~~for the content concept of the document, the advertisement performance information for the first advertisement and the second advertisement associated content~~ corresponding to the identified concept.

115. (Currently Amended) The method of claim 109, wherein the concept performance information for a concept includes one or more of selection information and impression information for advertisements presented with the document and corresponding to the one or more concept[[s]].

116. (Currently Amended) The method of claim 109, further comprising determining a confidence measure for the advertisement performance information, the confidence measure representing a confidence level for the advertisement performance information relative to other advertisement performance information.

117. (Previously Presented) The method of claim 116, wherein determining the confidence measure for the advertisement performance information comprises determining a confidence measure for the advertisement performance information based on one or more of the age of data included in the advertisement performance information and the amount of the data included in the advertisement performance information.

118. (Currently Amended) The method of claim 109, wherein the ~~at least one of the one or more advertisement~~[[s]] for which the initial advertisement performance information is

modified is included with the same as the forwarded at least one of the one or more advertisements.

119. (Currently Amended) The method of claim 109, wherein the ~~at least one of the one or more advertisement~~[[s]] for which the initial advertisement performance information is modified is different from the forwarded ~~at least one of the one or more advertisements~~.

120. (Currently Amended) The method of claim 109, wherein forwarding, based on the modified advertisement performance information, [[the]] at least one of the ~~one or more~~ advertisements comprises:

comparing the modified advertisement performance information for an advertisement to a threshold;

determining that the modified advertisement performance information exceeds the threshold; and

forwarding the advertisement based on the modified advertisement performance information exceeding the threshold.

121. (Currently Amended) The method of claim 109, wherein:

identifying the one or more content concepts [[of]] to which the document is relevant comprises identifying a first ~~content~~-concept and a second ~~content~~-concept [[of]]to which the document is relevant; and

the method further comprising determining, for each content concept of the document, the at least one of the one or more advertisements associated with the content concept comprises determining that one of the one or more an advertisement[[s]] is associated with both the associated with the first ~~content~~-concept and the second ~~content~~-concept [[of]]for the document.

122. (Currently Amended) The method of claim 109, wherein:

receiving the initial advertisement performance information for the ~~one or more~~ advertisements comprises receiving advertisement targeting information for the ~~one or more~~ advertisements; and

receiving the ~~content~~ concept performance information comprises receiving ~~content~~ concept targeting performance information representing an aggregate performance of advertisements targeted according to the advertisement targeting information that were presented with the document based on the advertisement targeting information.

123. (Currently Amended) The method of claim 109, further comprising:  
identifying a first advertisement ~~of the one or more advertisement~~ that does not have initial advertisement performance information;  
determining that at least one of the ~~one or more content identified~~ concepts ~~[[of]]~~for the document ~~associated with~~ correspond to the first advertisement;  
receiving ~~content~~ concept performance information for the at least one of the ~~one or more content identified~~ concepts ~~associated with~~ corresponding to the first advertisement; and  
determining, based on the received ~~content~~ concept information for the at least one of the ~~one or more content identified~~ concepts associated with the first advertisement, estimated advertisement performance information for the first advertisement.

124. (Currently Amended) The method of claim 123, wherein determining the estimated advertisement performance information for the first advertisement comprises determining a weighted-sum of the content concept information for the at least one of the ~~one or more content identified~~ concepts ~~associated with~~ corresponding to the first advertisement.

125. (Currently Amended) An apparatus comprising one or more processors connected to a storage device, wherein the one or more processors are configured to:  
identify ~~receive one or more~~ advertisements that are available for presentation with a document;

receive initial advertisement performance information for the ~~one or more~~ advertisements, the advertisement performance information for each advertisement specifying a measure of performance computed based on previous presentations of the advertisement;

identify one or more ~~content~~ concepts [[of a]]to which the document is relevant, concepts being identified based on content of the document;

receive, for each identified ~~content~~ concept [[of ]]for the document, ~~content~~ concept performance information representing an aggregate performance of advertisements that were presented with the document and corresponding to the concept;

determine, for each ~~content~~ concept of the document, at least one of the one or more advertisements associated with the ~~content~~ concept;

modify the initial advertisement performance information for ~~at least one of the one or more~~ an advertisement~~[[s]]~~ using the ~~determined content~~ concept performance information for the ~~content~~ an identified concept associated with corresponding to the ~~at least one of the one or more~~ advertisement~~[[s]]~~; and

forward, based on the modified advertisement performance information, at least one of the ~~one or more~~ advertisements.

126. (Currently Amended) The apparatus of claim 125, wherein the advertisement performance information includes ~~one or more~~ of selection information and impression information for the ~~one or more~~ advertisements.

127. (Previously Presented) The apparatus of claim 125, wherein the document is a Web page identified by a URL.

128. (Currently Amended) The apparatus of claim 125, wherein the one or more processors are configured to modify the initial advertisement performance information for ~~an~~ the ~~at least one of the one or more~~ advertisement~~[[s]]~~ by:

~~selecting identifying an identified content-concept associated with the at least one of the one or more to which the advertisement[[s]] corresponds; and~~

~~receiving content-concept performance information associated with the content for the selected concept, the content performance information being computed based on performance of other advertisements that were presented with the document and correspond to the selected concept-associated with the at least one of the one or more advertisements.~~

129. (Currently Amended) The apparatus of claim 125, wherein the one or more processors are configured to receive, for each ~~content-identified~~ concept ~~[[of]]~~ for the document, the ~~content-concept~~ performance information comprises determining, for each ~~content-identified~~ concept for ~~[[of]]~~ the document, ~~content-concept~~ performance information using ~~[[the]]~~ document specific advertisement performance information for the identified advertisements at least one of the one or more advertisements associated with the content-corresponding to the identified concept.

130. (Currently Amended) The apparatus of claim 129, wherein the one or more processors are further configured to:

~~determine, for each content-concept of the document, the at least one of the one or more advertisements associated with the content-concept by determine[[ing]], for a content-each identified concept [[of]] for the document, document specific advertisement performance information for a first advertisement and a second advertisement-associated with the content concept; and~~

determine, for each identified content-concept ~~[[of]]~~ for the document, ~~content-concept~~ performance information using the document specific advertisement performance information for the ~~at least one of the one or more advertisements associated with the content-concept by processing, for the content-concept of the document, the advertisement performance information for the first advertisement and the second advertisement associated content-corresponding to the identified~~ concept.

131. (Currently Amended) The apparatus of claim 125, wherein the concept performance information for a concept includes one or more of selection information and impression information for advertisements presented with the document and corresponding to the one or more concept[[s]].

132. (Currently Amended) The apparatus of claim 125, wherein the one or more processors are further configured to determine a confidence measure for the advertisement performance information, the confidence measure representing a confidence level for the advertisement performance information relative to other advertisement performance information.

133. (Previously Presented) The apparatus of claim 132, wherein the one or more processors are configured to determine the confidence measure for the advertisement performance information by determining a confidence measure for the advertisement performance information based on one or more of the age of data included in the advertisement performance information and the amount of the data included in the advertisement performance information.

134. (Currently Amended) The apparatus of claim 125, wherein the ~~at least one of the one or more~~ advertisement[[s]] for which the initial advertisement performance information is modified is included with the same as the forwarded ~~at least one of the one or more~~ advertisements.

135. (Currently Amended) The apparatus of claim 125, wherein the ~~at least one of the one or more~~ advertisement[[s]] for which the initial advertisement performance information is modified is different from the forwarded ~~at least one of the one or more~~ advertisements.



136. (Currently Amended) The apparatus of claim 125, wherein the one or more processors are configured to forward, based on the modified advertisement performance information, ~~[[the]]~~ at least one of the ~~one or more~~ advertisements by:

comparing the modified advertisement performance information for an advertisement to a threshold;

determining that the modified advertisement performance information exceeds the threshold; and

forwarding the advertisement based on the modified advertisement performance information exceeding the threshold.

137. (Currently Amended) The apparatus of claim 125, wherein the one or more processors are configured to:

identify the one or more content concepts ~~[[of]]~~ to which the document is relevant by identifying a first ~~content~~ concept and a second ~~content~~ concept ~~[[of]]~~ to which the document is relevant; and

~~determine, for each content concept of the document, the at least one of the one or more advertisements associated with the content concept by determining~~[[ing]] that ~~one of the one or more~~ an advertisement~~[[s]]~~ is associated with ~~both the associated with the first content concept and the second content concept~~ [[of]] for the document.

138. (Currently Amended) The apparatus of claim 125, wherein the one or more processors are configured to:

receive the initial advertisement performance information for the ~~one or more~~ advertisements by receiving advertisement targeting information for the ~~one or more~~ advertisements; and

receive the ~~content~~-concept performance information by receiving ~~content~~ concept targeting performance information representing an aggregate performance of advertisements

targeted according to the advertisement targeting information that were presented with the document based on the advertisement targeting information.

139. (Currently Amended) The apparatus of claim 125, wherein the one or more processors are further configured to:

identify a first advertisement ~~of the one or more advertisement~~ that does not have initial advertisement performance information;

determine that at least one of the ~~one or more content~~ identified concepts ~~[[of]]~~ for the document ~~associated with~~ correspond to the first advertisement;

receive ~~content~~ concept performance information for the at least one of the ~~one or more content-identified~~ concepts ~~associated with~~ corresponding to the first advertisement; and

determine, based on the received ~~content~~ concept information for the at least one of the ~~one or more content~~ identified concepts associated with the first advertisement, estimated advertisement performance information for the first advertisement.

140. (Currently Amended) The apparatus of claim 139, wherein the one or more processors are configured to determine the estimated advertisement performance information for the first advertisement by determining a weighted-sum of the content concept information for the at least one of the ~~one or more content~~ identified concepts ~~associated with~~ corresponding to the first advertisement.

141. (Currently Amended) A storage device storing a computer program comprising one or more code segments that, when executed, cause at least one processor to:

identify ~~receive one or more~~ advertisements that are available for presentation with a document;

receive initial advertisement performance information for the ~~one or more~~ advertisements, the advertisement performance information for each advertisement specifying a measure of performance computed based on previous presentations of the advertisement;

identify one or more ~~content~~ concepts [[of a]]to which the document is relevant, concepts being identified based on content of the document;

receive, for each identified content concept [[of ]]for the document, ~~content~~-concept performance information representing an aggregate performance of advertisements that were presented with the document and corresponding to the concept;

determine, for each ~~content~~ concept of the document, at least one of the one or more advertisements associated with the content concept;

modify the initial advertisement performance information for at least one of the one or more an advertisement~~[[s]]~~ using the ~~determined content~~ concept performance information for the content an identified concept associated with corresponding to the at least one of the one or more advertisement~~[[s]]~~; and

forward, based on the modified advertisement performance information, at least one of the ~~one or more~~ advertisements.

142. (Currently Amended) The storage device of claim 141, wherein the advertisement performance information includes ~~one or more of~~ selection information and impression information for ~~the one or more~~ advertisements.

143. (Previously Presented) The storage device of claim 141, wherein the document is a Web page identified by a URL.

144. (Currently Amended) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to modify the initial advertisement performance information for an the at least one of the one or more advertisement~~[[s]]~~ comprises one or more code segments that, when executed, cause the at least one processor to:

select identify an identified ~~content~~-concept associated with the at least one of the one or more to which the advertisement~~[[s]]~~ corresponds; and

receive content concept performance information associated with the content for the selected concept, the content performance information being computed based on performance of other advertisements that were presented with the document and correspond to the selected concept, associated with the at least one of the one or more advertisements.

145. (Currently Amended) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to receive, for each ~~content identified~~ concept [[of]]for the document, the ~~content~~ concept performance information comprise one or more code segments that, when executed, cause the at least one processor to determine, for each ~~content-identified~~ concept [[of ]] for the document, ~~content~~-concept performance information using [[the]] document specific advertisement performance information for the ~~at least one of the one or more advertisements associated with the content identified advertisements~~ corresponding to the identified concept.

146. (Currently Amended) The storage device of claim 145, wherein the one or more code segments that, when executed, cause the at least one processor to:

~~determine, for each content concept of the document, the at least one of the one or more advertisements associated with the content concept comprise one or more code segments that, when executed, cause the at least one processor to determine, for a content~~ each identified concept [[of]]for the document, document specific advertisement performance information for a first advertisement and a second advertisement ~~associated with the content concept; and~~

~~determine, for each identified content concept [[of]]for the document, content concept performance information using the document specific advertisement performance information for the at least one of the one or more advertisements associated with the content concept comprise one or more code segments that, when executed, cause the at least one processor to process, for the content concept of the document, the advertisement performance information for the first advertisement and the second advertisement associated content~~ corresponding to the identified concept.

147. (Currently Amended) The storage device of claim 141, wherein the concept performance information for a concept includes one or more of selection information and impression information for advertisements presented with the document and corresponding to the one or more concept[[s]].

148. (Currently Amended) The storage device of claim 141, wherein the one or more code segments further comprise one or more code segments that, when executed, cause the at least one processor to determine a confidence measure for the advertisement performance information, the confidence measure representing a confidence level for the advertisement performance information relative to other advertisement performance information.

149. (Previously Presented) The storage device of claim 148, wherein the one or more code segments that, when executed, cause the at least one processor to determine the confidence measure for the advertisement performance information comprise one or more code segments that, when executed, cause the at least one processor to determine a confidence measure for the advertisement performance information based on one or more of the age of data included in the advertisement performance information and the amount of the data included in the advertisement performance information.

150. (Currently Amended) The storage device of claim 141, wherein the ~~at least one of the one or more advertisement~~[[s]] for which the initial advertisement performance information is modified is included with the same as the forwarded ~~at least one of the one or more~~ advertisements.

151. (Currently Amended) The storage device of claim 141, wherein the ~~at least one of the one or more advertisement~~[[s]] for which the initial advertisement performance information is modified is different from the forwarded ~~at least one of the one or more~~ advertisements.

152. (Currently Amended) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to forward, based on the modified advertisement performance information, the at least one of the one or more advertisements comprise one or more code segments that, when executed, cause the at least one processor to:

compare the modified advertisement performance information for an advertisement to a threshold;

determine that the modified advertisement performance information exceeds the threshold; and

forward the advertisement based on the modified advertisement performance information exceeding the threshold.

153. (Currently Amended) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to:

identify the one or more content concepts ~~[[of]]~~ to which the document is relevant comprise one or more code segments that, when executed, cause the at least one processor to identify a first ~~content~~-concept and a second ~~content~~ concept ~~[[of]]~~ to which the document is relevant; and

~~determine, for each content concept of the document, the at least one of the one or more advertisements associated with the content concept comprise one or more code segments that, when executed, cause the at least one processor to determine that one of the one or more an advertisement[[s]] is associated with both the associated with the first content-concept and the second content-concept [[of ]] for the document.~~

154. (Currently Amended) The storage device of claim 141, wherein the one or more code segments that, when executed, cause the at least one processor to:

receive the initial advertisement performance information for the ~~one or more~~ advertisements comprise one or more code segments that, when executed, cause the at least one processor to receive advertisement targeting information for the ~~one or more~~ advertisements; and receive the ~~content~~-concept performance information comprise one or more code segments that, when executed, cause the at least one processor to receive ~~content~~-concept targeting performance information representing an aggregate performance of advertisements targeted according to the advertisement targeting information that were presented with the document based on the advertisement targeting information.

155. (Currently Amended) The storage device of claim 141, wherein the one or more code segments further comprise one or more code segments that, when executed, cause the at least one processor to:

identify a first advertisement ~~of the one or more advertisement~~ that does not have initial advertisement performance information;

determine that at least one of the ~~one or more content~~ identified concepts [[of]] for the document ~~associated with~~ correspond to the first advertisement;

receive ~~content~~ concept performance information for the at least one of the ~~one or more~~ ~~content-identified~~ concepts associated with corresponding to the first advertisement; and

determine, based on the received ~~content~~-concept information for the at least one of the ~~one or more content~~ identified concepts associated with the first advertisement, estimated advertisement performance information for the first advertisement.

156. (Currently Amended) The storage device of claim 155, wherein the one or more code segments that, when executed, cause the at least one processor to determine the estimated advertisement performance information for the first advertisement comprise one or more code segments that, when executed, cause the at least one processor to determine a weighted-sum of the content concept information for the at least one of the ~~one or more content~~ concepts associated with corresponding to the first advertisement.